

ABSTRACT

A method and an apparatus for a metal spinning operation capable of spinning a product having a non-circular cross section normal to an axis of rotation such as a polygonal/elliptic one. The actuators of a forming roller (5) are driven with feedback signals from a force sensor (8) fitted to the forming roller (5) to control the pushing force of the forming roller (5) so as to form a work (1) following the cross section shape of a mandrel (3), so that the product having the non-circular cross section normal to the axis of rotation can also be formed. The motion of the forming roller (5) in the forming operation is stored, the shape of the mandrel (3) near the point of the forming roller (5) contacting with the work (1) is estimated based on the motion of the forming roller (5) from a time point before one rotation of the mandrel (3), and according to the estimation, the rotational speed of a motor for rotating the mandrel (3) is controlled for the forming operation.